

## PROCEEDINGS OF THE CLUB

MEETING OF JANUARY 13, 1925.

The meeting of this date was held at the American Museum of Natural History.

The following were elected to membership: Mr. L. W. Nuttall, Brickell Apts., Miami, Florida; Dr. Valdimir A. Shternov, 350 West 154 Street, New York, N. Y.; Miss Martha Gertrude Buhofer, 523 West 121 Street, New York, N. Y.

Three resignations were accepted: Miss L. M. F. Allabach, Dr. B. O. Dodge, Dr. Francis W. Pennell.

According to the usual program of the annual business meeting, the reports of the various officers for the year were next received.

The Secretary reported that 15 regular meetings of the Club had been held during the year, with a total attendance of 393, an average of over 26 per meeting. Thirty-six new members were elected in 1923; 17 were lost through resignation. The present membership is 302.

In the report of the Editors of the Bulletin, presented by Dr. T. E. Hazen, it was stated that Volume 51 contained 502 pages exclusive of volume index and 13 plates. It was recommended that in the future only 9 numbers a year be published, omitting the months of July, August and September.

The Editor of *Torreyia*, Mr. George T. Hastings, reported the publication of six bi-monthly numbers, aggregating 114 pages.

Dr. Michael Levine, the Business Manager, reported that from 8 regular advertisers there was an income of approximately \$130.

Rev. Dr. H. M. Denslow, Honorary Custodian of the local herbarium of the New York Botanical Garden, stated that during the last three years the additions amount to 3200 sheets.

Dr. M. A. Howe, Delegate to the Council of the New York Academy of Sciences, reported upon attendance at meetings of the Council.

The Chairman of the Field Committee, Mr. A. T. Beals, reported that 37 meetings were held during the year with an average attendance of 12 persons. One of the most interesting trips was a visit to the Ice Gulch and Sunken Garden on Shawangunk Mountain east of Ellenville, N. Y., on Saturday and

Sunday, July 26 and 27. Here, with the temperature in the exposed parts of the mountain in the neighborhood of 85°, the shady parts of the ravine showed patches of snow and ice.

Dr. N. L. Britton, Chairman of the Local Flora Committee, was unable to be present, but sent a check of \$100, to be used by the Club for any purpose which the Club deemed advisable. Dr. Britton was given a vote of thanks by the Club and it was moved that the money be added to the permanent funds of the Club.

Apropos of the election of new members, the president informed the Club that Miss Mann had found it necessary to hand in her resignation thus terminating her remarkably efficient record as treasurer. The following officers for the ensuing year were then elected: *President*, Dr. H. M. Richards; *Vice-Presidents*, Dr. John Hendley Barnhart, and Dr. C. Stuart Gager; *Secretary*, Dr. Arthur H. Graves; *Treasurer*, Dr. R. C. Benedict; *Editor*, Dr. Tracy E. Hazen; *Associate Editors*, Dr. Alexander W. Evans, Dr. H. A. Gleason, Dr. Alfred Gundersen, Mr. G. T. Hastings, Dr. Marshall A. Howe, Dr. M. Levine, Dr. A. B. Stout and Dr. C. L. Carey.

The secretary was authorized by the Club to write a congratulatory letter to Gen. T. E. Wilcox, who has been connected with the Club since 1879.

ARTHUR H. GRAVES,  
*Secretary.*

#### MEETING OF JANUARY 28, 1925

The meeting of this date was held at the Museum Building of the New York Botanical Garden.

The Secretary read a communication from the Institute Jazewski at Leningrad announcing the celebration on February 8 of the completion of thirty-five years of scientific work by Dr. W. Tranzchel as well as twenty-five years of his service as Conservator of the Botanical Museum at the Russian Academy of Sciences.

The Budget Committee, Dr. Barnhart, Chairman, offered the following estimates for 1925:

<i>Estimated Income</i>	<i>Estimated Outgo</i>
Members' Dues . . . . \$1500.00	Bulletin . . . . . \$2000.00
Bulletin . . . . . 1000.00	Editor (Bulletin) . . . 100.00
Torrey . . . . . 150.00	Torrey . . . . . 500.00
Memoirs . . . . . 100.00	Index Cards . . . . . 400.00
Index Cards . . . . . 600.00	Treasurer . . . . . 150.00
Interest . . . . . 150.00	Bibliographer . . . . . 150.00
Advertising . . . . . 100.00	Sundries . . . . . 150.00
Sales . . . . . 100.00	
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Total . . . . . \$3700.00	\$3450.00
	Bulletin (from surplus) . . . . . 600.00
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	Total . . . . . \$4050.00

The report of the Budget Committee was adopted by vote of the Club.

Dr. Small then described some of his work on Irises. The original home of the Irises in the southeastern part of the United States was in the land now represented by the southern part of the Southern Appalachians. The land between this region and the Atlantic was submerged in the pleistocene. Since the subsequent emergence of the land the species have migrated in all directions. Florida is a very favorable field for Iris exploration. 12 or 14 species occur in the eastern United States. Water colors of the various species were shown.

ARTHUR H. GRAVES,  
*Secretary.*

#### MEETING OF FEBRUARY 10, 1925

This meeting was held at the American Museum of Natural History.

The following were elected to membership in the Club: Mrs. Ernest H. Wilson, 37 Forest Ave., Caldwell, N. J.; Mrs. Spencer S. Marsh, Kalmia Lodge, Madison, N. J.

It was announced that two members had been lost by death. Mr. E. B. Chamberlain, a member since 1907, died on February 2. He was for twenty years a teacher at the Franklin School for

Boys, New York City, and greatly beloved both by pupils and faculty. He was also a well-known bryologist, having been Secretary-Treasurer of the Sullivant Moss Society for many years.

Mr. E. P. Bicknell died on February 9. His membership in the Club dated from January 30, 1880, a period of 45 years. During this time he contributed 56 papers to the Bulletin of the Torrey Club and about a half-dozen to *Torreya*. He took an active interest in the affairs of the New York Botanical Garden, and was for many years connected with its management. Mr. Bicknell was for many years one of the most active members of the Club and his death is recorded with great regret.

The scientific program of the evening consisted of an illustrated lecture entitled "Some Points of Interest Concerning Hemlock," by Major Barrington Moore. The importance of the Hemlock (*Tsuga canadensis*) for the tanning industry, for paper pulp, and also for lumber, as well as its aesthetic value were mentioned. The method of seed distribution is interesting, the cones closing in wet weather, and opening in dry. At each dry period a few more seeds drop out, thus spreading the distribution period over the entire winter. Mossy logs and stumps seem favorable seed beds: the ground cover of decaying needles seems unfavorable. Hemlock is very tolerant of shade. It likes moist sites, but grows on rocky ridges which seem dry. Probably they have moisture near the surface. It is rather shallow-rooted. The rate of growth is more rapid than formerly supposed, and compares favorably with oak, but is not nearly so rapid as white pine. As to temperature, its preference is for a comparatively cool average.

As regards the hemlock grove in the New York Botanical Garden, Major Moore stated that it was of scientific interest because it was the southernmost grove of extensive size near the coast; although, as noted by Dr. Kelly, of Rutgers University, there are trees along the Raritan near the coast. The present lack of reproduction in the New York Botanical Garden grove was discussed. The cause is not known for certain, but may be due to trampling by increasing numbers of visitors or to the absence of mossy logs and stumps. In summarizing the field studies of the Botanical Garden Committee, Major Moore noted the narrow ranges of evaporation and temperature of

hemlock sites which are in general drier than those of hardwoods, with the soil temperature a little cooler.

In the discussion which followed, Major Moore stated that 3,600 trees were counted in the New York Botanical Garden grove in the spring of 1923. He knew of no other previous census. Mr. Taylor mentioned the occurrence of *Tsuga canadensis* at the head of Little Neck Bay, L. I., and also at Wading River—in the former place in a fairly large quantity.

ARTHUR H. GRAVES,  
Secretary.

#### MEETING OF FEBRUARY 25, 1925

The meeting of this date was held at the Museum Building of the New York Botanical Garden.

The following persons were elected to membership in the Club: Dr. Sam F. Trelease, Columbia University, New York, N. Y.; Mrs. R. S. P. Trowbridge, 540 West 123rd St., New York, N. Y.; Mrs. Helen S. Hill, Brooklyn Botanic Garden, Brooklyn.

The resignation of Miss Helen M. Carr, of Bradford, Vt., formerly of Mount Vernon, N. Y., was accepted with regret.

In regard to the amendment to Section II of the Constitution proposed at the meeting of February 10, whereby the phrase "not to exceed eight in number" which follows "associate editors" be removed. Dr. Howe moved its adoption. As explained by Dr. Hazen, this amendment would remove the limitation in the number of the associate editors which for various reasons is not now advisable. The amendment was adopted by unanimous vote of the Club. Dr. A. F. Blakeslee was reelected to the Board of Editors by vote of the Club.

The Secretary was instructed to cast a ballot for the election of Mrs. Helen S. Hill as bibliographer for the year 1925.

The scientific part of the program consisted of a talk by Dr. Hazen on Plants of the Red Snow.

Formerly there was supposed to be only one "red snow" plant; namely, *Sphaerella nivalis*, so named by the Swedish botanist, Sommerfelt, in 1824. The type material came from Greenland and was reported by Capt. John Ross in 1819 in his "Voyage of the Discovery . . . for Exploring Baffin's Bay and Inquiring into the Probability of a North-west Passage." Ross

figures and describes many crimson-splashed vertical cliffs on the west coast of Greenland and says the snow was red to a depth of 10 to 12 feet, which statement, however, may be taken with a grain of salt. In the same year of the publication of Ross' account, the plant was named *Uredo nivalis* by Bauer of Kew. Then Sommerfelt, in 1824, recognized it as an alga and called it *Sphaerella nivalis*. In 1896, Chodat, in studying the red snow of the Alps, indicated that this was not congeneric with the red rainwater species, *Sphaerella lacustris*, but that it was more like *Chlamydomonas*, and Wille actually made the transfer to *Chlamydomonas*, in 1903, assuming that it was identical with the *Sphaerella* of Greenland. The genus *Sphaerella* has the central mass of protoplasm united to the outer wall by threads of protoplasm. We do not know whether the Greenland species has these threads, because it has always been studied in its quiescent stage. There is, then, at present no sufficient evidence for the assumption of the identity of *Sphaerella nivalis* of Greenland with *Chlamydomonas nivalis* of the Alps and the Scandinavian mountains.

Red Snow in North America has been reported in the Rockies, the Selkirks and the Sierra Nevada, and has also been assumed without evidence to be the same species as that found in Greenland.

In Norway in 1920 Dr. Hazen found three species causing this phenomenon or red snow: (1) *Chlamydomonas nivalis* Wille, (2) The little known *C. lateritia* (Wittr.) Lagerheim, and (3) an entirely undescribed species, which is the chief occasion for this paper. Fortunately he found this new species in the motile stage and determined the presence of 4 flagella instead of 2 as in *Chlamydomonas*. It is somewhat similar to the genus *Carteria*, which, however, has its 4 cilia coming from only one point, while in the new form the cilia are inserted separately, somewhat distant from each other. A similar plant, green in color, had been described in 1876 by Archer as a form of *Chlamydomonas* and in 1883 it was named *Tetratoma* by Bütschli. The red species discovered by Dr. Hazen at Haugastøl, Norway, is therefore apparently new and served to confirm Bütschli's hitherto rather doubtful genus.

In the discussion which followed Dr. Seaver remarked that mycologists had experienced some difficulty with *Sphaerella*

because this was also the name of a fungus. The latter is now changed to *Mycosphaerella*.

ARTHUR H. GRAVES,  
*Secretary.*

#### NEWS NOTES

Dr. Roland M. Harper, whose article on Tallahassee, appears in this issue, is at present in Florida in charge of tabulating the state census. He, of course, manages to do a little botanizing during his spare time. Early in April Dr. Small and Dr. Wherry on their auto trip from Miami to El Paso stopped for a day's visit with Dr. Harper. Later Prof. L. H. Bailey stopped at Tallahassee and did some collecting of species of *Rubus* in the neighborhood. Prof. P. H. Rolfs, home for a visit between engagements in Brazil, was also a visitor.

On the 21st of May five busts were unveiled at the Hall of Fame, New York University. Among these was one of Dr. Asa Gray, the gift of The Gray Herbarium, Harvard and friends and relatives of Dr. Gray. Professor Benjamin L. Robinson, curator of the herbarium made an address and a tribute by President Eliot was given by phonofilm. In the tribute Dr. Eliot said "His reputation at home and abroad was much larger than that of a botanical specialist. He was recognized as a clear thinker and strong writer on philosophical and religious themes. Asa Gray enjoyed the satisfaction of having rendered a great and lasting service to his countrymen and to mankind. He knew that he had done much to diffuse among his countrymen a knowledge of botany and a love for it."

During the last of June a two-weeks school of Nursery Fruit Tree Identification was held at Geneva. The course was designed to enable horticulturists to recognize the varieties of cultivated fruit trees at any time of year.

Dr. Susan P. Nichols, Associate Professor of Botany at Oberlin College, has been spending part of a sabbatical year in research at the botanical laboratory of Columbia University, continuing her investigation on the reactions of plant cells to wounds.